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MATTHIAS SCHOLL 14781 MEMORIAL DRIVE SUITE 1319 HOUSTON, TX 77079			VU, BAI D	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/525,464	<b>Applicant(s)</b> WIELGOSZ ET AL.	
	<b>Examiner</b> BAI D. VU	<b>Art Unit</b> 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,9,11 and 14-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,9,11 and 14-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant has amended claims 1 and 14 in the amendment filed on 12/10/2007.  
Claims 1-3, 5, 7, 9, 11 and 14-26 are pending in this Office Action.

### ***Response to Arguments***

2. Applicant's arguments filed on 12/10/2007 with respect to claims 1-3, 5, 7, 9, 11 and 14-26 have been considered but they are not persuasive. The examiner respectfully traverses applicant's arguments.

#### **Regarding the 35 U.S.C. §102(e):**

- Applicant argued that the Addressing Rules and Routing Decision Rules as disclosed by Regula (US Pat No. 6,885,670 B1) (corresponding to the general rules and input rules, respectively, of the present invention) do not include Header Error Check and initiation cell errors. Therefore, the step of checking Header Error Check and initiation cell errors as disclosed by Regula cannot and does not correspond to the step of checking general rules and input rules.

In response to applicant's argument, the examiner respectfully disagrees because Regula discloses as *Routing Decision Rules: a link interface determines, for each cell it receives, whether to forward the cell, and whether to capture the cell. The operation of the routing decision logic is summarized in Tables 8 and 9 and is a*

*function both of a node's position in a hierarchy of rings and of the ring topology (col. 20 lines 14- 19); and a node must swallow cells whose contents of the 1RA subfield 739 match the node's address. These cells have circulated the ring without being swallowed by another node. This situation occurs at the completion of a broadcast, as the result of an error or fault condition, or because the destination node was busy and unable to swallow the cell (col. 21 lines 3- 8).*

- Applicant argued that the Addressing Rules as disclosed by Regula do not correspond to the general rules. The Routing Decision Rules do not correspond to the output rules and general rules. Regula does not disclose any output rules assigned to nodes.

In response to applicant's argument, the examiner respectfully disagrees because Regula discloses as *Addressing Rules and Routing Decision Rules (col. 19 line 44 and col. 21 line 39)* wherein Addressing Rules and Routing Decision Rules apply to each node as described in *a system interconnect with nodes and paths that provides a frequency reference to each node on the interconnect, with the frequency reference being used to generate the same frequency node clock in each node and with data from one node being sent to another adjacent node without including a data clock signals (col. 2 lines 46-52).*

Claims 1, 14 and 24; and claims 2, 3, 5, 7, 11, 14-19 and 21-26 depended from claims 1, 14 and 24 are rejected as being anticipated by Regula.

Claims 9 and 20 are rejected as being obvious over the teachings of Regula in view of Goode et al. (US Pat. No. 6,639,896 B1)

In light of the foreground arguments, the 35 U.S.C. 102 and 103 rejections are hereby sustained.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claim 1** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The claimed limitation “wherein the input rules, the output rules and the general rules define unit-processing commands” in claim 1, contain subject matter which was not described in provided fig. 1 and pages 10-11 of the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Dependent claims 2, 3, 5, 7, 9, 11 and 15-23 are rejected under 112 at the same reason as discussed in claim 1.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 1-3, 5, 7, 11, 14-19 and 21-26** are rejected under 35 U.S.C. 102(e) as being anticipated by Regula (US Pat No. 6,885,670 B1).

As per **claim 1**, Regula discloses “a method for control of data flow in a packet data transmission system based on filtering and performing actions on packets transmitted through a network, according to predetermined packet processing rules characterized in that to the packet data transmission system comprising”

“a network of nodes including input nodes (IN1-INn), output nodes (OUT1-OUTn) and intermediate nodes including data processing nodes (PROC1-PROCn) or multiplexers (MUX1-MUXo),” as a method and apparatus for implementing a system interconnect for transporting a first cell containing a plurality of data between a plurality of nodes (col. 3 lines 13-15) wherein a cell is referred to as a packet of data; a method and apparatus for initializing a plurality of nodes on a ring network of a system interconnect includes a network also having a plurality of links with initialization being

accomplished by a first node emitting a reset sequence to a second node and the second node further emits the reset sequence (col. 3 lines 39-44); and as the initiation cell is transmitted from the source node 915 onto the secondary ring 907 and traverses the secondary ring 907 towards the coupler node 909 through some number of intermediate non-coupler nodes (col. 25 lines 25-28) wherein a plurality of nodes on a ring network are referred to as input nodes, output nodes, and data processing nodes or multiplexers; these routing decision rules are defined and hereinafter discussed. One skilled in the art will understand that these routing rules support additional topologies beyond those described herein and further that the routing rules may be modified to support yet additional topologies (col. 9 lines 39-43) referred as processing rules assigned in each node; the pair of adjacent nodes have a source node and a receiver node with each of the plurality of nodes including an input section connected to the incoming end of an input path and an output section connected to the outgoing end of an output path (col. 3 lines 19-24) referred as explanation of input, output, and intermediate nodes; one of these delayed data signals 607 is selected by a multiplexer 609 to produce a selected delayed data signal 611 (col. 14 lines 52-54 and FIG. 6) wherein a multiplexer is one of plurality intermediate nodes.

“data is supplied to the input nodes (IN1-INn) of the packet data transmission system, and from the data packets read from the nodes (IN1-INn) transmission units are formed, and” as cells, containing data and administrative information, generally travel around the ring in a unidirectional manner (col. 8 lines 45-46); and cells are sent from the source node 105 to the adjacent receiver node 107 over the counterclockwise

unidirectional path 131 within the link (col. 8 lines 54-56) wherein the adjacent receiver node is referred to as an input node and cells are sent from the source node are referred to as transmission units.

“each of the nodes is assigned input and output rules as well as general rules (R), wherein the input rules, the output rules and the general rules define unit-processing commands, and” as Addressing Rules and Routing Decision Rules (col. 19 line 44 and col. 20 line 14).

“whenever a packet is available at the node input (PROC1-PROCn, MUX1-MUXo, OUT1-OUTn), a check is made whether the general rules apply to a given unit, and in case of a positive result of this check, the commands, determined by the general rules, are executed, and then a check is made whether the input rules of the given node apply to a given unit and if they do, the commands, determined by the input rules, are executed and then the node (IN1-INn, PROC1-PROCn, MUX1-MUXo, OUT1-OUTn) functions are preformed and a check is made whether the output rules apply to a given unit and in case of a positive result of this check, the commands, determined by the output rules, are executed, and” as Header Error Check (col. 33 line 42); and initiation cell errors (other than header errors) are detected by means of the CRC or parity checks in the attributes word are reported with a response code of 1. Response code 2 (rejected due to lock) invokes a retry after a delay to allow the competing locked operation to complete. Response codes 3-5 result in the same error response being given at the source node that was given at the destination node unless the transaction was a posted write (col. 32 lines 35-37).

“then in the output nodes (OUT1-OUTn), the packets are extracted from transmission units, which are created by adding at least one of a label field, a type field and a size field to the packet and,” as each node in turn registers the HostID field and the node's position, adds one to the position (X) it receives from its link inputs, and passes the ID word with the incremented position on to the next node at a send identifier state 1615 (col. 42 lines 45-48).

“when a rule is a conversion rule, a check is made whether a given conversion algorithm requires additional rules being present and if it does and the additional rules are not present, the packet is rejected and the packets to which the rule applies are defined by specifying the packets label, type, size or similar parameters” as the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module 117 (col. 6 lines 59-64) referred as using a conversion rule; and a 12 bit subfield is reserved for response codes and associated messages. Table 21 gives the response codes as implemented in a preferred embodiment (col. 32 lines 32-34) referred as packet rejection specified by fields and code in tables TABLE 20 and TABLE 21.

As per **claim 2**, Regula discloses “the method according to claim 1, characterized in that in the input nodes (IN1-INn) the transmission units are assigned labels, which identify the input node (IN1-INn), which a given unit originates from” as

however, the address of the source node was also stored in the SrcID subfield 706 (col. 24 lines 4-5).

As per **claim 3**, Regula discloses “the method according to claim 1, characterized in that the rules define a command assigning labels to a transmission unit and/or the rules define a filtering command, the filtering being achieved by replacing packets of given transmission units with empty packets” as an interrupt transition cell contains only header and attributes information. Interrupt transition cells are generated both to signal transitions of external interrupt pins and to signal internal events such as error conditions. The interrupt attribute word contains an interrupt message field. For interrupt transition cells relating to external interrupt pins, this field is filled with zeros (col. 38 lines 29-35) wherein a generated interrupt transition cell is referred to as a filtering command to replacing a data packet with an empty packet.

As per **claim 5**, Regula discloses “the method according to claim 1, characterized in that the rules define a transmission unit range filtering command, the filtering being achieved by replacing packets of transmission units within a given range with empty packets” as for interrupt transition cells relating to external interrupt pins, this field is filled with zeros (col. 38 lines 34-35) “and/or the rules define a command for replacing identification fields of packets in units, the command being implemented by replacing values in given fields with different ones” as for signaling an internal event, this field contains a binary code that represents the event. An interrupt transition cell is

handled as an initiation cell that engenders a response cell (col. 38 lines 35-38)

As per **claim 7**, Regula discloses “the method according to claim 1, characterized in that the rules define a keep command, the keeping being achieved by passing on only certain transmission units and replacing packets in the remaining transmission units with empty packets and/or by passing on only certain range of transmission units and replacing packets in the remaining transmission units with empty packets” as the null signal eventually traverses the ring and returns to the clock originator node advancing that node to a link selection register initialization state 1621. Each non-clock originator node in the wait null state 1619 passes whatever signal it receives through to its neighbor node. When a non-clock originator node detects a null signal for more than 31 data clocks, the non-clock originator node advances to the link selection register initialization state 1621. At the conclusion of the link selection register initialization process, described hereinafter, the node enters a ready state 1623. When both links have reached the ready state 1623 on all nodes, the system is fully configured. If a node detects a disconnect (defined as all zero at the link inputs for greater than 31 data clocks) on one path, the node enters a loopback state 1627 that uses the other path of the link but otherwise operates normally. Finally either the loopback state 1627, or the ready state 1623 can enter the reset state 1603 as a result of a reset or resync condition (col. 42 line 65 to col. 43 line 15) wherein the processing of a node selecting a path of the link to the other node when receiving a cell with null

signal referred as a defined keep command as claimed.

As per **claim 11**, Regula discloses “the method according to claim 1, characterized in that the rules define an assign command, the command being implemented by assigning a defined value to a predetermined packet identification field in all packets that the rule applies to and which comprise the identification field” as for bus transaction cells, the transfer attributes field 704 includes an address extension field used for systems employing an address longer than 32 bits. In primary/secondary ring topologies (discussed hereinafter in the Network Topologies section), part of the transfer attributes field 704 is used as a source node identification (SrcID) subfield 706 that is required when generating response cells for bus transaction initiation cells. If the cell is a bus transaction cell, the SrcID subfield 706 is filled with the source node's address when the cell is generated (col. 16 lines 1-10) “and/or the rules define a conversion command, the command being implemented by conversion of packets of transmission units from a given format to another predetermined format” as The node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64).

As per **claim 14**, Regula discloses “a method for control of data flow in a packet data transmission system provided with nodes having node functions, the method comprising the steps of:”

“encapsulating packet data into transmission units at input nodes;” as this embodiment limits the size of the cell to 52 bytes (a multiple of 32 bits). This size limitation allows the cell to be encapsulated within a 53 byte external ATM cell (col. 30 lines 20-23)

“assigning rules to each node, the rules defining additional unit-processing functions to be performed by the node and being one of general rules applying to all transmission units processed in the node, input rules applying to transmission units incoming at a specific input of the node and output rules applying to transmission units outgoing from a specific output of the node;” as Addressing Rules and Table 7 provides the rules for composing the routing tag's 729 address subfields for routing over one, two and three hops (col.19 lines 44-47); and Routing Decision Rules and a link interface determines, for each cell it receives, whether to forward the cell, and whether to capture the cell. The operation of the routing decision logic is summarized in Tables 8 and 9 and is a function both of a node's position in a hierarchy of rings and of the ring topology (col. 20 lines 15-20)

“processing data in each node by performing sequentially functions defined by general rules, functions defined by the input rules, the node functions and functions defined by the output rules; and” as Swallowing Decision, Forwarding Decision, and Capturing Decision (col. 20 line 62 to col. 21 line 29)

“converting transmission units to outgoing packet data at the output nodes” as the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction sub actions are converted into initiation cells and stored in individual entries in the ITC (col. 7 lines 28-31); and the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64).

As per **claim 15**, Regula discloses “the method according to claim 1, wherein additionally a label is assigned to each transmission unit while encapsulating, the label identifying the input node, from which the transmission unit originates” as however, the address of the source node was also stored in the SrcID subfield 706 (col. 24 lines 4-5).

As per **claim 16**, Regula discloses “the method according to claim 1, wherein the rules define a label command, which causes assigning a label to each transmission unit” as a PCI bus write command creates a write transaction initiation cell. An acknowledgment response cell completes the transaction initiated by a write transaction initiation cell. A PCI bus read command creates a read transaction initiation cell (col. 8, lines 35-36 and lines 38-39).

As per **claim 17**, Regula discloses “the method according to claim 1, wherein the rules define a filter command, which causes replacing specific data packets in the transmission units with empty data packets” as an interrupt transition cell contains only header and attributes information. Interrupt transition cells are generated both to signal transitions of external interrupt pins and to signal internal events such as error conditions. The interrupt attribute word contains an interrupt message field. For interrupt transition cells relating to external interrupt pins, this field is filled with zeros (col. 38 lines 29-35) wherein a generated interrupt transition cell is referred to as a filtering command to replacing a data packet with an empty packet.

As per **claim 18**, Regula discloses “the method according to claim 1, wherein the rules define a remap command, which causes remapping of specific values in a specific field within data packets in the transmission units” as the AMCAM 145 translates a PCI address into the routing information required to transport a bus transaction cell to a particular node. The size of the AMCAM 145 is implementation dependent and determines both the maximum number of nodes that can be supported as well as the granularity of mapping of local bus addresses to nodes on the interconnect (col. 29 lines 6-12); and each node also determines its relative position number. When this process completes, each node knows its own address as well as that of the host and learns the number of nodes in the network. Each node computes its own address by adding the HostID to the relative position number recorded on the clockwise link (col. 40 lines 29-

34).

As per **claim 19**, Regula discloses “the method according to claim 1, wherein the rules define a keep command, which causes passing transmission units with data packets having specific values of a specific field, and replacing data packets of all other transmission units with empty data packets” as the null signal eventually traverses the ring and returns to the clock originator node advancing that node to a link selection register initialization state 1621. Each non-clock originator node in the wait null state 1619 passes whatever signal it receives through to its neighbor node. When a non-clock originator node detects a null signal for more than 31 data clocks, the non-clock originator node advances to the link selection register initialization state 1621. At the conclusion of the link selection register initialization process, described hereinafter, the node enters a ready state 1623. When both links have reached the ready state 1623 on all nodes, the system is fully configured. If a node detects a disconnect (defined as all zero at the link inputs for greater than 31 data clocks) on one path, the node enters a loopback state 1627 that uses the other path of the link but otherwise operates normally. Finally either the loopback state 1627, or the ready state 1623 can enter the reset state 1603 as a result of a reset or resync condition (col. 42 line 65 to col. 43 line 15) wherein the processing of a node selecting a path of the link to the other node when receiving a cell with null signal referred as a defined keep command as claimed.

As per **claim 21**, Regula discloses “the method according to claim 1, wherein the rules define an assign command, which causes setting a specific field of packets in transmission units to a specific value” as for bus transaction cells, the transfer attributes field 704 includes an address extension field used for systems employing an address longer than 32 bits. In primary/secondary ring topologies (discussed hereinafter in the Network Topologies section), part of the transfer attributes field 704 is used as a source node identification (SrcID) subfield 706 that is required when generating response cells for bus transaction initiation cells. If the cell is a bus transaction cell, the SrcID subfield 706 is filled with the source node's address when the cell is generated (col. 16 lines 1-10).

As per **claim 22**, Regula discloses “the method according to claim 1, wherein the rules define a convert command, which causes converting a format of chosen packets in transmission units” as the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction sub actions are converted into initiation cells and stored in individual entries in the ITC (col. 7 lines 28-31); and the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64).

As per **claim 23**, Regula discloses “the method according to claim 1, further comprising the steps of:”

“checking if in the output nodes exist a specific conversion algorithm and further rules required for conversion of the chosen data packets, the checking made prior to converting the format of the chosen data packets in the transmission units; executing the specific conversion algorithm if the specific conversion algorithm and further rules required for conversion of the chosen data packets exist in the output nodes; and” as constructing the routing tag is accomplished by capturing the address from the bus and converting the address to a value stored in the routing tag (col. 4 lines 45-48); and the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction sub actions are converted into initiation cells and stored in individual entries in the ITC 149 (col. 7 lines 28-31)

“rejecting the transmission unit if no specific conversion algorithm and further rules required for conversion of the chosen data packets exist in the nodes” as response code 2 (rejected due to lock) invokes a retry after a delay to allow the competing locked operation to complete (col. 32 lines 38-39); and TABLE 21 (col. 33 lines 28-40).

As per **claim 24**, Regula discloses “a device for data flow control in a packet data transmission system, the device comprising:”

“input nodes, having node functions related to encapsulating incoming data packets into transmission units;” as Cell Processing Within the Node and FIG. 10

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illustrates the processes used by the link interface to receive and transmit a cell (col. 27 lines 53-55); and this embodiment limits the size of the cell to 52 bytes (a multiple of 32 bits). This size limitation allows the cell to be encapsulated within a 53 byte external ATM cell. Thus, bus transaction cells may contain up to forty bytes of payload data (col. 30 lines 20-24)

“intermediate nodes, having node functions related to processing transmission units, whose inputs are connected to the outputs of the input nodes or other intermediate nodes,” as the initiation cell is transmitted from the source node 915 onto the secondary ring 907 and traverses the secondary ring 907 towards the coupler node 909 through some number of intermediate non-coupler nodes (col. 25 lines 25-28)

"output nodes, having node functions related to converting transmission units to outgoing data packets, whose inputs are connected to the outputs of the input nodes or intermediate nodes," as the cell generator 147 translates transactions on the bus 143. Address-phase and write-transaction-data-phase bus transaction subactions are converted into initiation cells and stored in individual entries in the ITC (col. 7 lines 28-31); and the node 101 processes PCI bus commands generated by the host computer 113 to transmit information (contained in cells) over the ring 100 to the node 103. At the node 103 this information is converted to appropriate PCI bus operations and so communicates with the input/output module (col. 6 lines 59-64) “wherein the input nodes, the intermediate nodes and the output nodes have assigned rules, the rules defining additional functions to be performed by the input nodes, the intermediate nodes and the output nodes and being one of general rules applying to all transmission units

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processed in the node, input rules applying to transmission units incoming at a specific input of the node, and output rules applying to transmission units outgoing from a specific output of the node” as Addressing Rules and Table 7 provides the rules for composing the routing tag's 729 address subfields for routing over one, two and three hops (col.19 lines 44-47); and Routing Decision Rules and a link interface determines, for each cell it receives, whether to forward the cell, and whether to capture the cell. The operation of the routing decision logic is summarized in Tables 8 and 9 and is a function both of a node's position in a hierarchy of rings and of the ring topology (col. 20 lines 15-20)

As per **claim 25**, Regula discloses “the device according to claim 24, wherein the intermediate nodes are data processing nodes and multiplexers” as one of these delayed data signals 607 is selected by a multiplexer 609 to produce a selected delayed data signal 611 (col. 14 lines 52-54 and FIG. 6) wherein a multiplexer is one of plurality intermediate nodes.

As per **claim 26**, Regula discloses “the device according to claim 24, wherein each of the transmission units consists of a header and a data packet, and the header comprises a label, defining the input node, from which a given transmission unit originates” as Cell Structure and Addressing and FIG. 7 illustrates the format of a cell indicated by a general reference character 700. The cell 700 is the unit of transport in the interconnect and is composed of a header 701, a header error check (HEC) subfield

703, within a transfer attributes field 704 and a payload field 705 (col. 15 lines 59-64); and the address of the source node was also stored in the SrcID subfield 706 (col. 24 lines 4-5).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 9 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Regula in view of Goode et al. (US Pat. No. 6,639,896 B1).

As per **claim 9**, Regula does not explicitly disclose “the method according to claim 1, characterized in that the rules define a skip command, the skipping being achieved by passing on only certain transmission units and deleting the remaining transmission units and/or by passing on only certain range of transmission units and deleting the remaining transmission units”.

However, Goode et al. teaches the private data field 114 (a reserved vendor specific field) contains application specific data that facilitates payload handling. For example, in a video distribution system, the private data identifies the title identification codes (TIC) that are associated with specific programs being transported in the payload portion 104. The title identification code (TIC) field 114 is used to perform stream

integrity checking on a packet-by-packet basis for data packets only. At some nodes within the system, when a data packet is received, the received TIC is compared to the expected TIC to verify that the correct content is being received. The expected TIC is stored in a lookup table that is indexed by the destination address from the received packet. When the TIC stored in the table matches the received TIC, then the packet has been received correctly, otherwise, an error has occurred and the packet needs to be removed from the stream (col. 4 lines 42-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Goode et al. teaching of performing stream integrity checking on data packet into Regula system in order to have a packet structure enables the network to deliver digital information through the ASI ring network to a user that is identified in the routing information field (Goode et al., col. 1 line 42-57).

As per **claim 20**, Regula does not explicitly disclose “the method according to claim 1, wherein the rules define a skip command, which causes passing transmission units with data packets having specific values of a specific field, and removing all other transmission units”.

However, Goode et al. teaches the private data field 114 (a reserved vendor specific field) contains application specific data that facilitates payload handling. For example, in a video distribution system, the private data identifies the title identification codes (TIC) that are associated with specific programs being transported in the payload portion 104. The title identification code (TIC) field 114 is used to perform stream

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***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bai D. Vu whose telephone number is 571-270-1751. The examiner can normally be reached on Mon - Fri 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bai D Vu/  
Examiner, Art Unit 2165

03/13/2008

/C. T. T./

Primary Examiner, Art Unit 2162

/Christian P. Chace/

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Supervisory Patent Examiner, Art Unit 2169